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**ELECTRICAL ISOLATION SYSTEM FOR A FUEL CELL STACK
AND METHOD OF OPERATING A FUEL CELL STACK**

ABSTRACT OF THE DISCLOSURE

An electrical isolation system is provided for a fuel cell stack as well as a method of operating the fuel cell stack. The stack comprises a plurality of fuel cells connected in series and a coolant circuit for cooling

5 said fuel cells in operation using a liquid coolant having a restricted electrical conductivity. The stack is associated with a chassis having a chassis ground and comprising a plurality of coolant passages for said fuel cells. The coolant circuit comprises a plurality of conductive components such as an outer boundary wall of the fuel cell stack, a radiator and/or a pump at least

10 one of which is connected to said chassis ground. A measuring circuit is provided for measuring the resistance between a selected one of the fuel cells and the chassis ground and a monitoring circuit provides a warning signal, or disengages the connection to the output terminals of the stack or shuts down the stack if the resistance reaches a critical value.

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